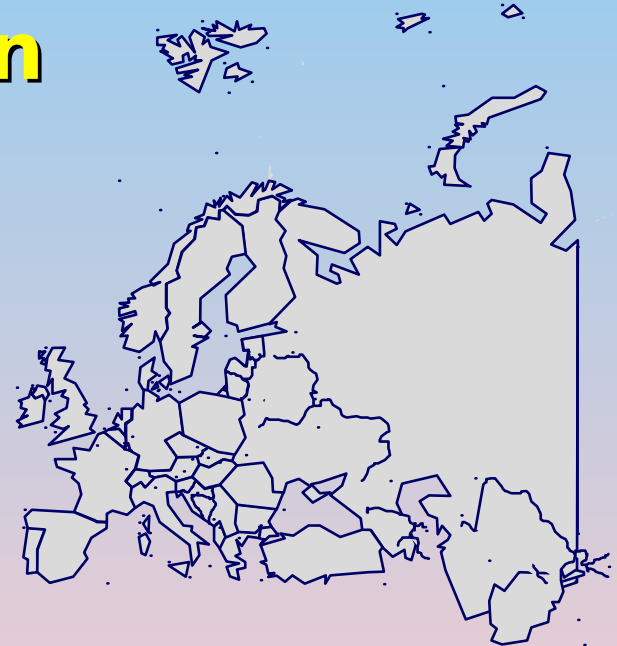


Trans-Atlantic Cooperation

Robert Bruce

Director, Armaments Cooperation Atlantic
Office of the Under Secretary of Defense
Acquisition, Technology and Logistics



Transformation Study Context

- Undertaken by Institute for Defense Analyses
 - Federally Funded Research and Development Center (FFRDC)
- Two month study by a group of senior military professionals, scientific advisors and intelligence specialists
- Study is not a decisional briefing
 - Purpose was to provide Secretary of Defense with new concepts and approaches to transform the military
 - Integrated with the other studies to form the intellectual basis for SECDEF's Quadrennial Defense Review

Military Capabilities

- Achieving Information and Decision Superiority
- Striking with Precision
- Deploying and Sustaining Military Power Rapidly
- Dominating Land, Sea, Air and Space Battlespace



Secretary Rumsfeld's Goals: Defense Transformation

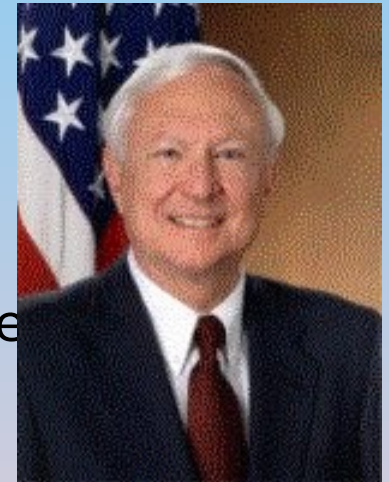
- Protect US homeland and overseas bases
- Project and sustain power in distant theaters
- Deny our enemies sanctuary
- Protect our information networks
- Use information technology to link our forces so they can fight jointly
- Maintain unhindered access to space and protect our space capabilities from enemy attack





Mr. Aldridge's Goals: Acquisition Excellence

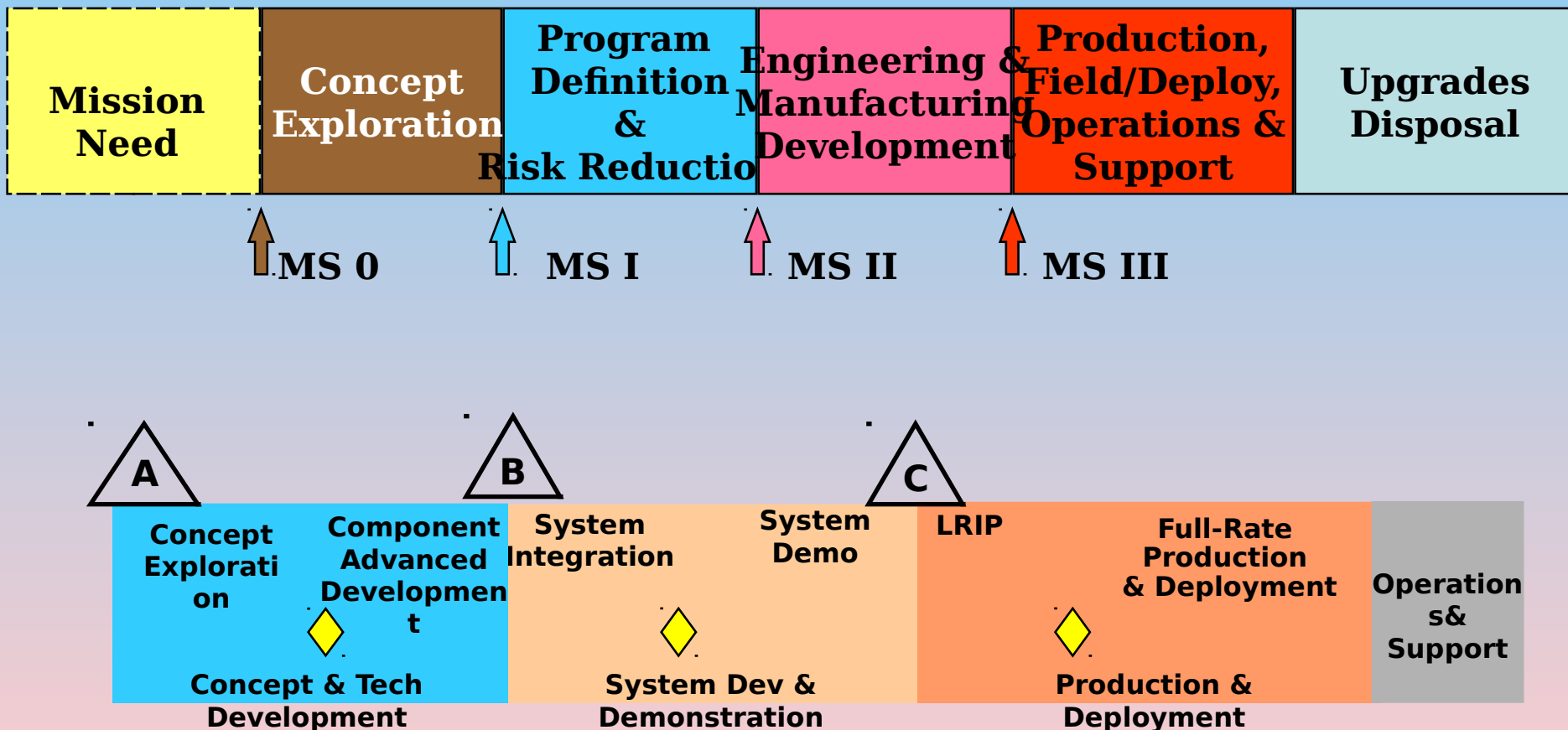
- Achieve credibility and effectiveness in the acquisition and logistics support process
- Revitalize the quality and morale of the DoD Acquisition, Technology, and Logistics workforce
- Improve the health of the defense industrial base
- Rationalize the weapon systems and infrastructure with defense strategy
- Initiate high leverage technologies to create the warfighting capabilities, systems and strategies of the future

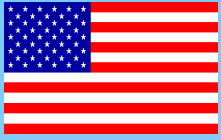




Acquisition Process Transformation

Defense Equipment Acquisition Life Cycle





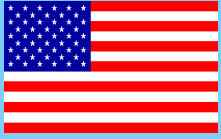
Advanced Concept Technology Demonstrations (ACTDs)



- Early/inexpensive evaluation of mature advanced technology
- Joint sponsorship/execution
 - operational user
 - technology developer
- Joint management
 - sponsoring warfighter
 - acquisition activity

ACTD homepage <http://www.acq.osd.mil/actd/>

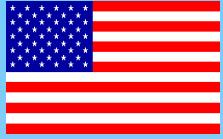
Success: 32 of 84 have completed demonstration phase



Technology Research and Development Project (TRDP)



- Technology base R&D “umbrella” agreement
- Basic, exploratory, and advanced technologies
- Implemented by Project arrangements (PAs)



Cooperative Test & Evaluation Programs Framework MOUs



- **New Legislative Authority**
- **MOUs being negotiated with Canada & Australia, MOA with France**

Framework MOU covers:

- **Reciprocal Use of Test Facilities**
- **Loan of Test Instrumentation and Test Equipment**
- **Cooperative Test and Evaluation Projects**

The MOU's Annexes include:

- **Model Project Arrangements (PAs)**
- **Cooperative T&E personnel assignment provisions for cooperative T&E PAs**
- **Model Project Equipment Transfer (PET)**



International Cooperative Opportunities Group (ICOG)

- Unmanned Aerial Vehicles
- Chemical-Biological/WMD Defense
- Training and Exercises
- Combat Identification
- Littoral Small ship Technologies
- Mine Countermeasures
- Air Refueling Technologies
- Interoperable Tactical Communications



Defense Trade Security Initiative

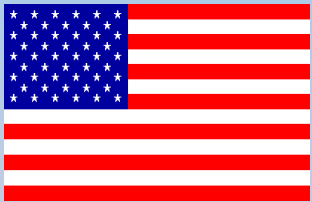
17 measures to improve Export Control process

- **establish new umbrella licensing categories**
- **expand scope of existing licenses**
- **improve Govt-Govt transfers**
 - **expedite review of DCI programs**
- **provide exemptions to “qualified” nations**

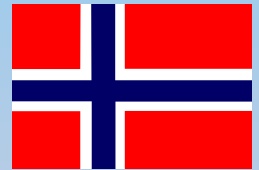
**We seek
to:**



Declaration of Principles for Defense Equipment and Industrial Cooperation



- **Harmonization of Military Requirements and Acquisition Processes**
- **Meeting National Defense Requirements**
- **Export Procedures**
- **Security**
- **Ownership and Corporate Governance**
- **Research and Development**
- **Technical Information**
- **Promoting Defense Trade**





Prague Summit Themes

November 2002

- New Capabilities
- New Members
- New Relationships



Defense Capabilities Initiative (DCI)

- **Objective: to improve NATO's defense capabilities to ensure effectiveness of multinational operations**
- **Consists of 58 projects, divided into five areas:**
 - **Deployability and Mobility**
 - **Sustainability and Logistics**
 - **Effective Engagement**
 - **Survivability of Forces and Infrastructure**
 - **NATO Command and Control and Information Systems**

Defense Ministers' NATO Equipment Priorities

- **Air and Sea Transport**
- **Defense against:**
 - **Nuclear**
 - **Biological and**
 - **Chemical weapons**
- **Secure and Interoperable Communications**
- **Air-to-Air Refueling**
- **Surveillance**
- **Precision Guided Munitions**





[Some] Current International Programs

- **Missile Defense**
- **MEADS**
- **GMLRS**
- **JSF**
- **MIDS**



Missile Defense Agency

- **Changed from “BMDO”**
- **Priorities**
 - **Defend US, deployed forces, allies, friends**
 - **Layered defense**
 - **Field ASAP**
 - **Spiral development**

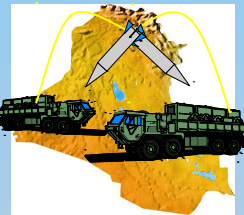


STRATEGIC ENVIRONMENT BALLISTIC MISSILES

Uses Of Ballistic Missiles

Developments Of Medium Range Ballistic M

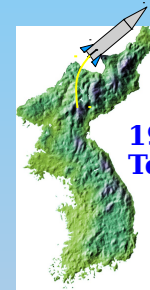
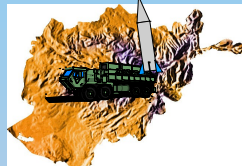
1980-88
Iraq



1986 Libya Fires 2
Scuds Against
Italian Territory



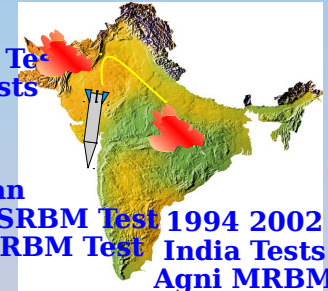
1988-91
Afghanistan



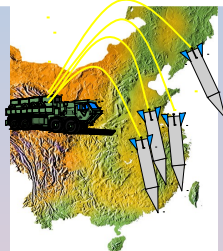
1998 North Korea
Tests Taepo Dong

1988 India Conducts
Five Nuclear Tests

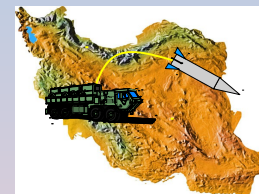
1998 Pakistan
• Ghauri MRBM Test
• Six Nuclear Tests



1996 China Fires 4 M-9
Missiles Into Taiwan
Straits During National
Elections

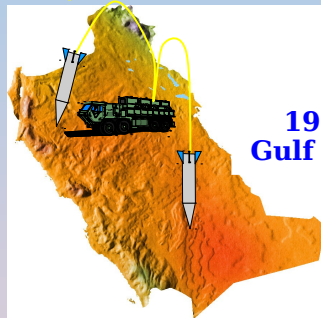


1998 Iran Tests
Shahab-3 MRBMs

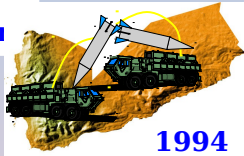


1999 Pakistan
• Shaheen SRBM Test 1994 2002
• Ghauri MRBM Test India Tests
Agni MRBM

1991
Gulf War



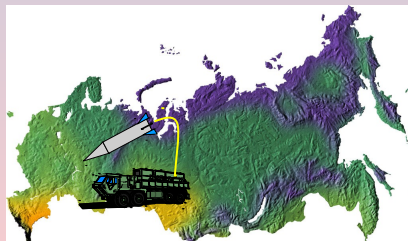
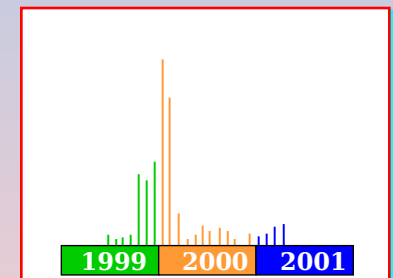
1994
Yemen
Civil War



2000 Iran Tests Two
Shahab-3 MRBMs



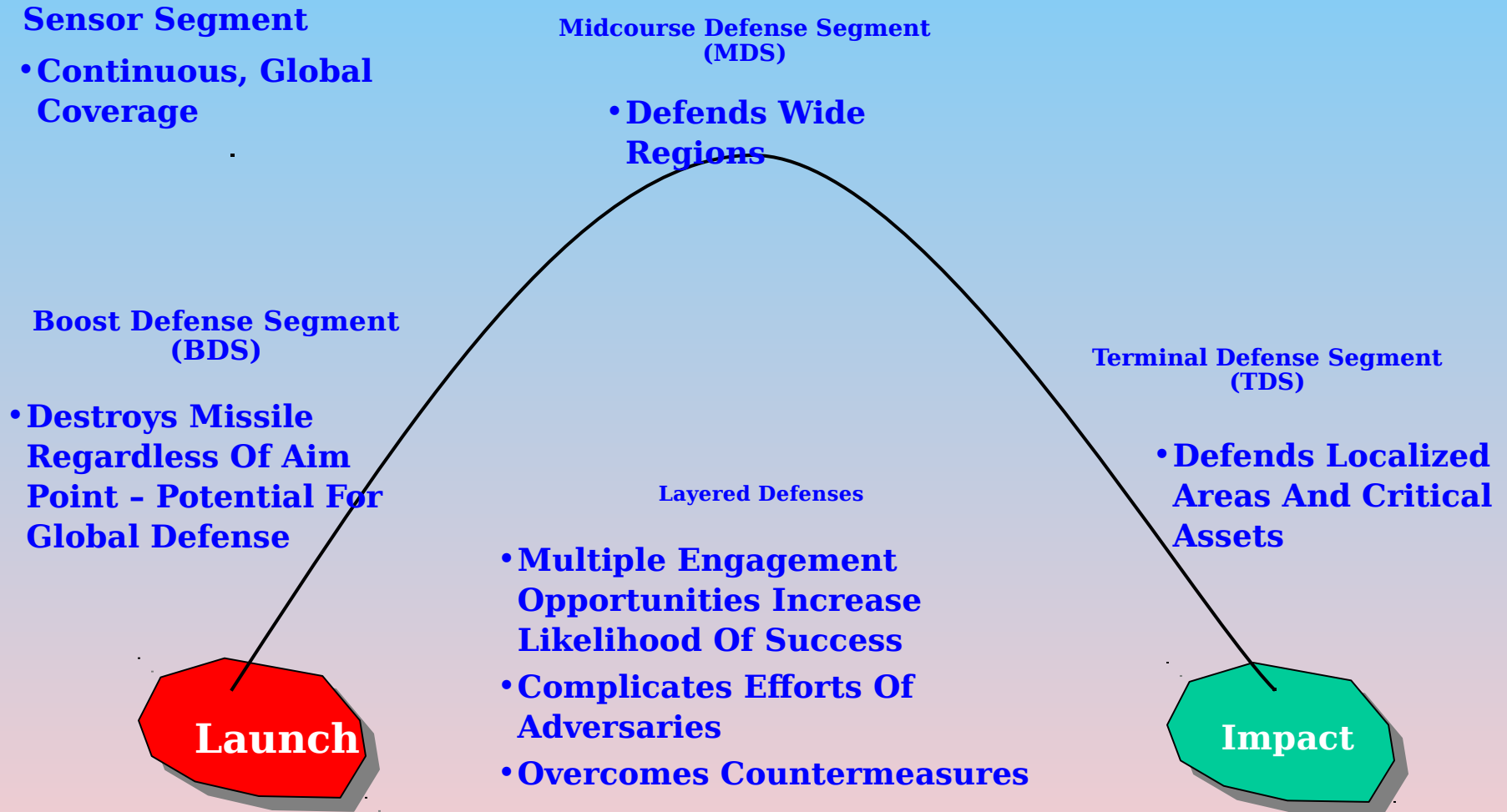
2000 Syria
Tests Improved Scud



Russia Launches
SRBMs
Against Chechnya
(SEP 99 - APR 01)

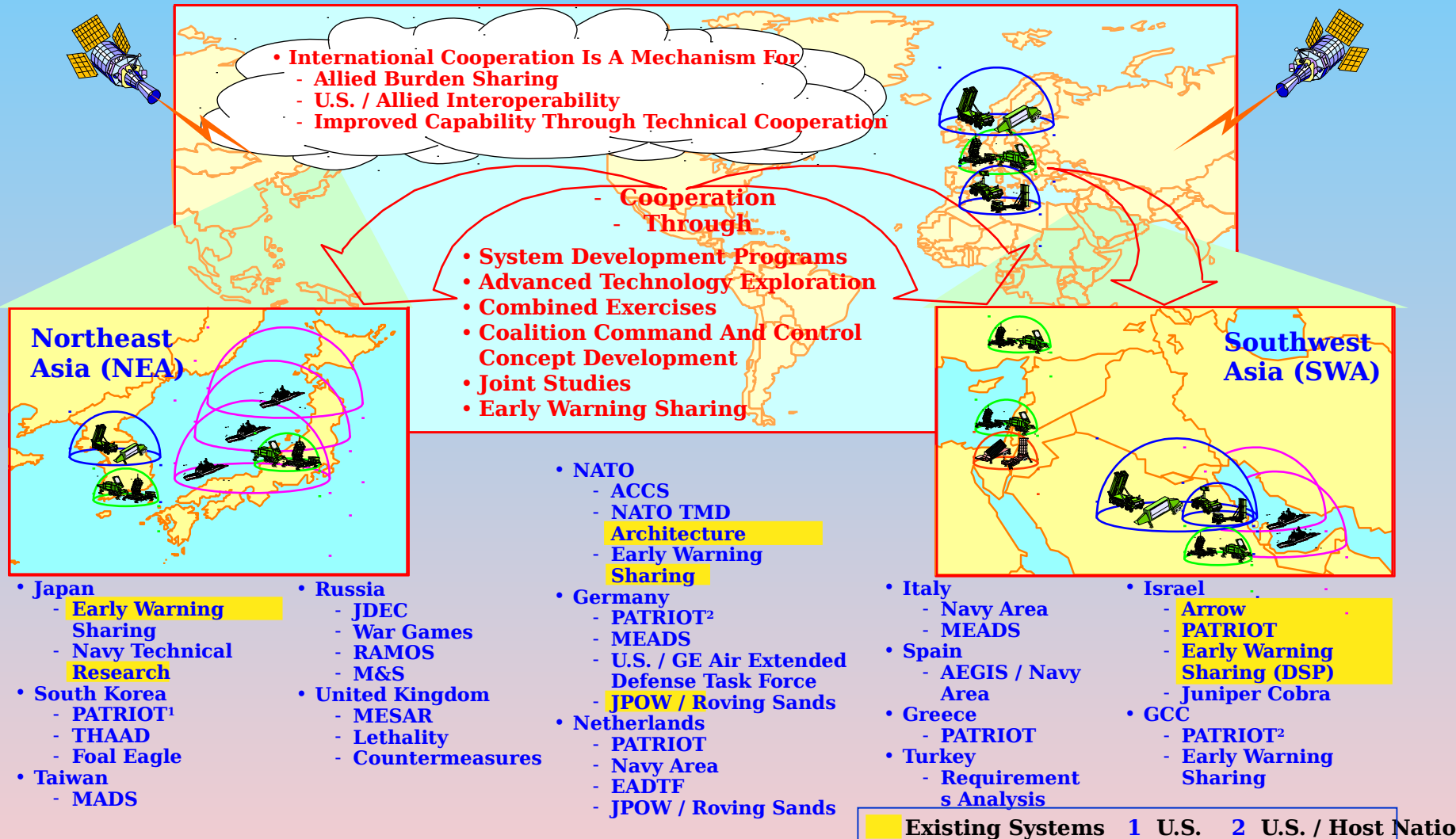


LAYERED MISSILE DEFENSE





MISSILE DEFENSE COOPERATION PAST AND PRESENT



Current Activities Provide Foundation For Future Allied Parti



BMDS PARTICIPATION APPROACH

Preliminary Thoughts On Allies And Friends Participation In MD

- **Protect U.S. Allies, Friends And Deployed Forces By Inviting Foreign Participation In BMDS Program**

- **Each Potential Partner's Needs Evaluated**

- **Government-To-Government Agreements**

- **Bilateral Agreements**

- **Allowing "In Kind" As Well As Direct Investment**

ABM Treaty Relief, 13 JUN 02:

U.S. Can Offer Missile Defense Options To Friends And Allies



[Some] Current International Programs

- **Missile Defense**
- **MEADS**
- **GMLRS**
- **JSF**
- **MIDS**

Medium Extended Air Defense System

PD/V MOU May 96

RRE 2000/01

Challenges

- Service and Congressional support
- Cost
- Budget processes
- requirements





[Some] Current International Programs

- **Missile Defense**
- **MEADS**
- **GMLRS**
- **JSF**
- **MIDS**



MLRS

International Partnership

1979



Basic MLRS MOU

- Jointly owns MLRS TDP
- Agree on hardware and software baseline
- Structured management forum
- Joint Security Classification Guide

1982



Italy Joins Partnership and Basic MOU

- Coproduction in five nations

1984

MLRS Terminal Guidance Warhead (TGW) Multinational Program Begun Under Basic MOU

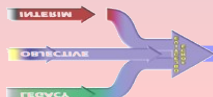
- Joint Security Classification Guide and PSI

1998

Guided MLRS (GMLRS) Cooperative Development; Supplement No. 4 Signed

- Joint Security Classification Guide and PSI
- GMLRS Program Delegation Disclosure Authority Letter (DDL)
- Background Data Release Process

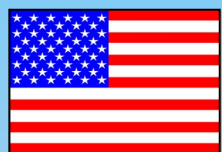
Precision Fires Rocket and Missile Systems





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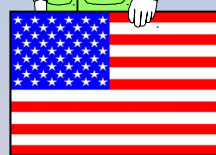
MLRS International Relationships



**U.S. PM / International
Program Coordinator /
International PM**



**3rd
Party
Sales /
FMS
Cases**



MOU Partners

- **Jointly own MLRS TDP**
- **Agree on hardware and software baseline**
- **Agree on 3rd party sales and production source**
- **Have structured management forum**
 - **Executive Management Committee (EMC)**
 - **Joint Steering Committee (JSC)**
 - **Joint Engineering Services**



Netherlands



Bahrain



Israel



Turkey



Greece



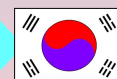
Japan



Norway



Denmark



Korea



3rd Party Sales

- **Need approval of MOU partners to buy MLRS**
- **Pay recoupments to MOU partners**
- **Contribute annually to engineering services**



Poland



Jordan



Switzerland

Precision Fires Rocket and Missile Systems

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RS8-95071110.2 02 Oct



International Cooperative Programs

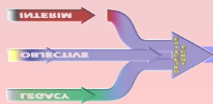
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Lessons Learned from Years of MLRS

Cooperation (1 of 2)

- Cooperative programs can avoid costly duplicate programs
- An established management structure is critical
 - JSC, EMC, Working Groups structure works well
- A jointly owned TDP facilitates program ownership and workshare
- Agreement on the Acquisition Strategy should be reached early
 - Ownership by partners of strategy is important when problems arise later
- Technical requirements must be achievable
 - Utilize only mature technologies in EMD
- Selection of competent contractors is critical
 - Technical performance is key consideration
 - Apply lessons learned from the tech base programs



Precision Fires Rocket and Missile Systems

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GG19-02052301-1 09 May 0



International Cooperative Programs

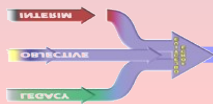
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Lessons Learned from Years of MLRS

Cooperation (2 of 2)

- *"Best Value" principle is important*
 - *Prevents workshare considerations from dictating program*
- *Base recoupments on actual contribution to program in lieu of off-take*
- *If you are willing to spend more to reach a workshare goal, establish up front the delta cost % increase you will accept*
- *Work export license requirements early by making it a requirement for contractors to execute license process early in program*
- *Start the MOU development and negotiation process at least 18 months prior to requirement date*



Precision Fires Rocket and Missile Systems

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GG19-02052301-2 09 May 0



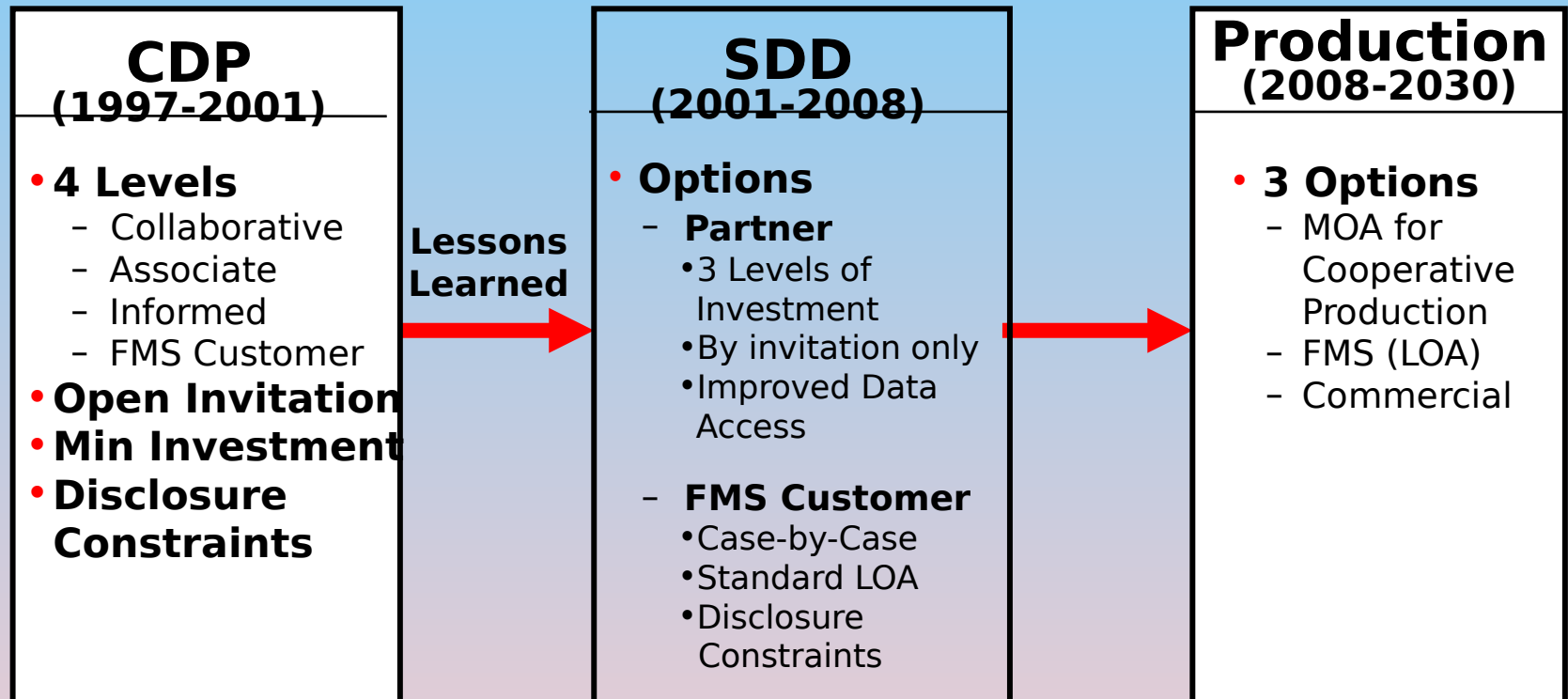
[Some] Current International Programs

- Missile Defense
- MEADS
- GMLRS
- JSF
- MIDS





JSF INTERNATIONAL PROGRAM PROGRESSION





INTERNATIONAL BUSINESS STRATEGY AGREEMENT STRUCTURE

Common Core MOU

Partner
Level I
Supplemental

Partner
Level II
Supplemental

Partner
Level III
Supplemental

- **Common Language**
 - Lowest Common Denominator
 - Negotiate with Level I Partner

- **Language Differentiates between Partner Levels**
 - Defines “Rights and Privileges”
 - Negotiate with Level I Partner First,
then others follow
 - Only have detailed insight into Level of Participation
 - Disclosure Levels established in Supplementals



JSF INTERNATIONAL BUSINESS STRATEGY

Cooperative Project

LEVEL I PARTNER

- Approx 10% Contribution (\$2.5B)
- National Deputy At Director Level

- Fully Integrated Office Staff (6-10)

- Maximum 1 Partner

LEVEL II PARTNER

- Approx 5% Contribution (\$1.25B)
- National Deputy Reporting To Director ID

- Integrated Office Staff (3-5)

- Maximum 2 Partners

LEVEL III PARTNER

- Approx 1-2% (\$250-500M) Per Country Contribution
- National Deputy Reporting To Director ID

- Integrated Office Staff (1)

- National Deputy Reporting To Director ID
Negotiable

Partnership Opportunity Closes 15 July 2002

Security Cooperation Arrangement (via FMS mechanisms)

SECURITY COOPERATION PARTICIPANT

- Individual Country LOA (For Full SDD Period)
Representation

- No Office

- Minimum \$25M-\$50 Per Country

Industry to Industry

**Teaming and Subcontracting Industrial Relationships will be Solely Developed Between
US Weapon System Contractors and Country Industrial Partners**



STATUS OF INTERNATIONAL COOPERATIVE AGREEMENTS

- **Cooperative Partners**

Level I - UK Memorandum of Understanding (MOU) Signed 17 Jan 2001



Level II - Netherlands MOU Signed 10 June 2002



Italy MOU Signed 24 June 2002



Level III - Canada MOU Signed 7 Feb 2002



Denmark MOU Signed 28 May 2002



Norway MOU Signed 20 June 2002



- **Anticipated Signings**

Level III - Turkey (11 July 2002)





[Some] Current International Programs

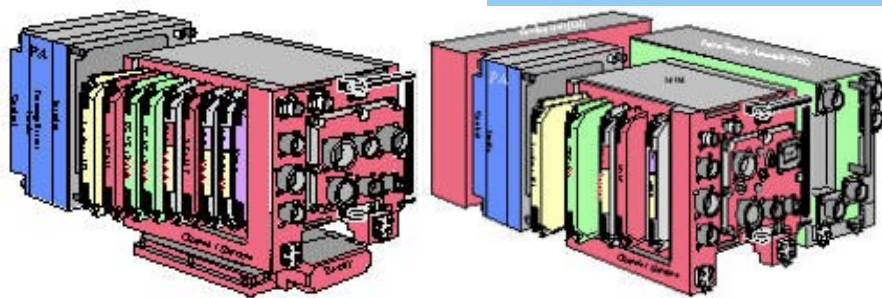
- Missile Defense
- Meads
- GMLRS
- JSF
- **MIDS**



Multifunctional Information Distribution System - Low Volume Terminal (MIDS - LVT)

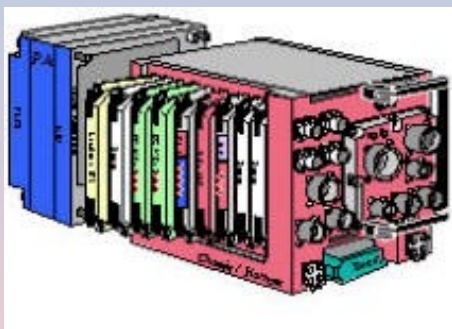


3rd Generation Link-16 Terminals - secure, jam-resistant, nodeless digital networking, 1/2 size weight of JTIDS Class II



LVT-1

LVT-2
US Army



LVT-3 (FDL)
US Air Force

Program Strategy:

- International Cooperation
- Joint & Allied interoperability
- Open architecture
- Interchangeability SRU level
- State of the art technology
- Acquisition reform
- Multiple Suppliers
- Continuous Competition

Maximum Power Transmission	200 watts
Relay Range	1200 nm
Communication Range	300 nm (C2-C2)
Voice Channels	2
MTBF	1000 hr
Volume	16.4 dm³ (.45
cu ft)	
Weight	23 kg (50.6 lbs)



MIDS Acquisition Strategy











Program Overview

MIDS Participants



Prospective FMS & Third Party Sales

FRANCE 	RAFALE NAVY PLATFORMS ARMY PLATFORMS AIR FORCE GROUND C²
GERMANY 	EF-2000/TYPHOON ACCS PLATFORMS FRIGATE 123
ITALY  ARMY)	TORNADO FBX/SEAD AMX NAVY PLATFORMS GROUND C² (AIR FORCE &
SPAIN 	EF-2000/TYPHOON EF-2000/TYPHOON F-100 FRIGATE EF-18
US  PATRIOT, ...D,	ACCS PLATFORMS (AIR FORCE) F/A-18, EA-6B, ARMY SHIPS, F-15, F-16,
ABL, B-2 NETMA 	EF-2000/TYPHOON

UK
Switzerland
Belgium
Netherlands
Norway
Denmark
Australia
Japan
Taiwan
Finland
NATO AGS
NACMA ACCS
Australia RAN
Singapore
Greece
Canada
Saudi Arabia
Turkey
Thailand
S. Korea



Rumsfeld's Lessons from Afghanistan

- **Future wars will require all elements of national power**
- **Jointness**
- **Interoperability**
- **The mission must determine the coalition**
- **Prevention, self-defense and preemption**
- **Rule out nothing**
- **Boots on the ground**



Office of the Under Secretary of Defense Acquisition, Technology and Logistics

ROBERT BRUCE

Director, Armaments Cooperation Atlantic

**International Cooperation
3070 Defense Pentagon
Washington, DC 20301-3070**

**Phone: (703) 602-
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FAX: (703) 602-
0949**